

Add new claims as follows:

22 20. (new) A method of continuously casting metals, comprising applying a non-moving, vibrating magnetic field having a frequency no greater than 65 Hz to a molten metal in a casting mold to impose only vibration on the molten metal,

wherein said non-moving, vibrating magnetic field is produced by arranging electromagnets, each of which comprises an iron core and a coil wound over the iron core, in a facing relation on opposite sides of the mold along a transverse width thereof to lie side by side along a longitudinal width of the mold, and supplying a single-phase AC current to each coil.

--21. (new) A method of continuously casting metals, comprising the step of:

applying a non-moving, vibrating magnetic field having a frequency no greater than 65 Hz to a molten metal in a casting mold to impose only vibration on the molten metal,

the non-moving magnetic field being a waveform representing an intensity distribution in a direction of a longitudinal width of the casting mold, a phase of the waveform remaining constant over time in that the waveform does not move in the direction of the longitudinal width of the casting mold.--

--22. (new) A method of continuously casting metals, comprising the step of:

applying a non-moving, vibrating magnetic field having a frequency no greater than 65 Hz to a molten metal in a casting mold to impose only vibration on the molten metal,

CA the non-moving, vibrating magnetic field being a waveform alternating in opposite directions and, during the same time, representing an intensity distribution in a direction of a longitudinal width of the casting mold, a phase of the waveform remaining constant over time in that the waveform does not move in the direction of the longitudinal width of the casting mold.--

--23. (new) The method of claim 21, wherein said non-moving, vibrating magnetic field is produced by arranging electromagnets, each of which comprises an iron core and a coil wound over the iron core, in a facing relation on opposite sides of the mold along a transverse width thereof to lie side by side along a longitudinal width of the mold, and supplying a single-phase AC current to each coil.

--24. (new) The method of claim 22, wherein said non-moving, vibrating magnetic field is produced by arranging electromagnets, each of which comprises an iron core and a coil wound over the iron core, in a facing relation on opposite sides of the mold along a transverse width thereof to lie side by side along a longitudinal width of the mold, and supplying a single-phase AC current to each coil.

--25. (new) The method of claim 21, wherein said non-moving, vibrating magnetic field is produced by magnetic forces

developed between adjacent electromagnets arranged adjacent to each other on a same side of the mold producing vibrating flows only in the direction of the longitudinal width of the mold.

(2) --26. (new) The method of claim 22, wherein said non-moving, vibrating magnetic field is produced by magnetic forces developed between adjacent electromagnets arranged adjacent to each other on a same side of the mold producing vibrating flows only in the direction of the longitudinal width of the mold.

--27. (new) The method of claim 21, wherein said non-moving, vibrating magnetic field is produced by magnetic forces developed between opposing electromagnets arranged on opposite sides of the mold producing vibrating flows only in a direction transverse to the longitudinal width of the mold.

--28. (new) The method of claim 22, wherein said non-moving, vibrating magnetic field is produced by magnetic forces developed between opposing electromagnets arranged on opposite sides of the mold producing vibrating flows only in a direction transverse to the longitudinal width of the mold.